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Safety Instructions

1. The AC adapter isolates this equipment from the AC supply.
2. Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a soft cloth to clean the monitor housing and a tape to stick dust and fingerprints on the screen panel.
3. Slots and openings on the back or top of the cabinet are provided for ventilation. They must not be blocked or covered. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
4. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
5. Never push objects of any kind, or spill liquid of any kind into this product.
6. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltages or other risks. If any above mentioned misuse or other accident (dropping, mis-operations) occurs, contact qualified service personnel for servicing.
7. The power supply cord serves as a power disconnect device for pluggable equipment. The socket outlet shall be installed near the equipment and shall be easily accessible.

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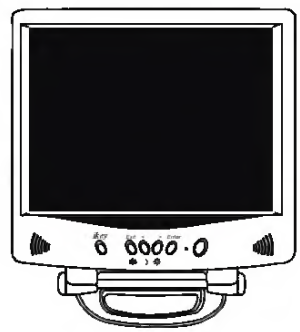
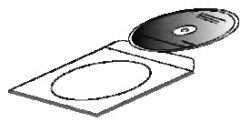
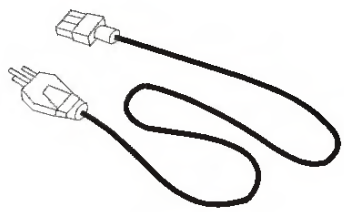
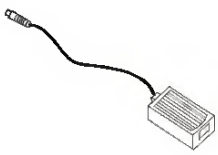
Unpacking

Please check you have the following items. If they are missing or are damaged, please contact the dealer immediately at which you purchased the good.

LCD monitor with signal cable	
Quick Start Guide	
CD-ROM	
Power cord	
Power Adaptor	

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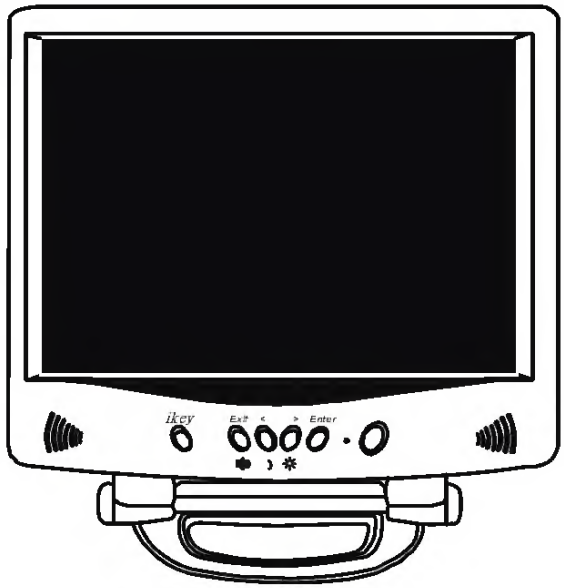
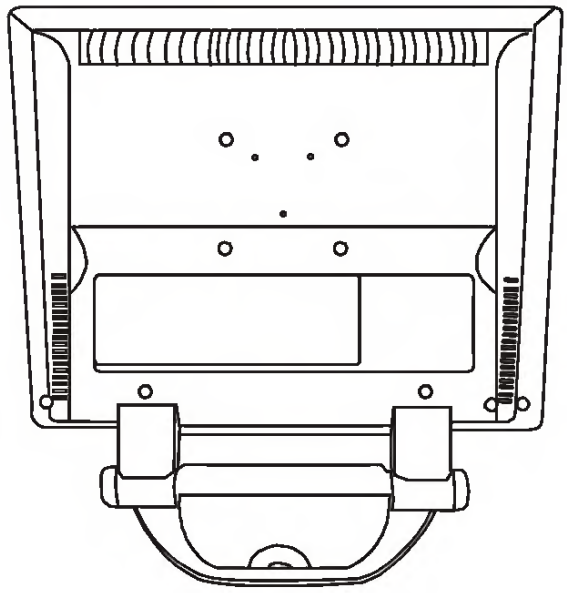
Views of the Monitor

Front View



Back View (1)



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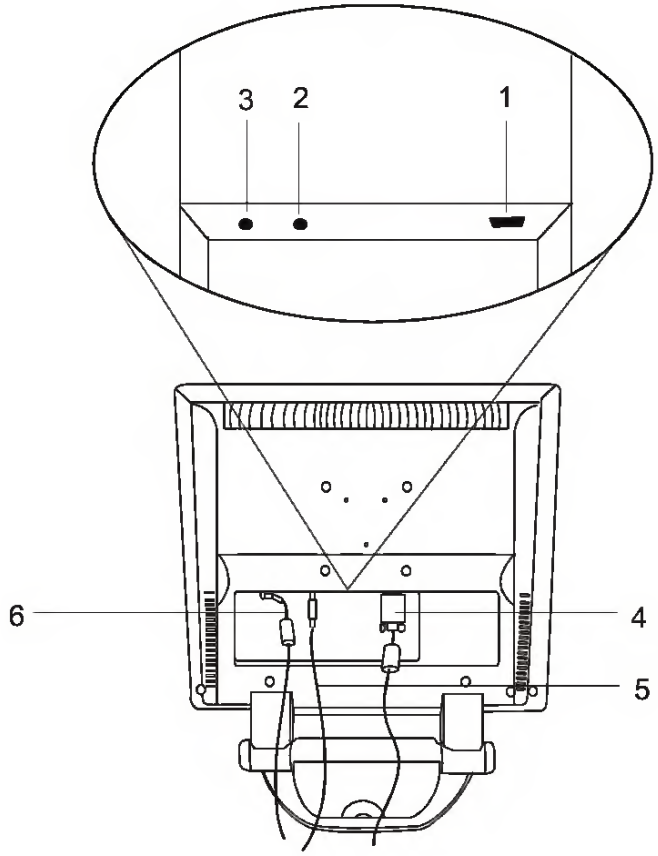
Back View (2): Locations of plugs & sockets



1. Video jack	2. Audio jack
3. Power adaptor jack	4. Signal cable
5. Audio cable	6. Power adaptor cable

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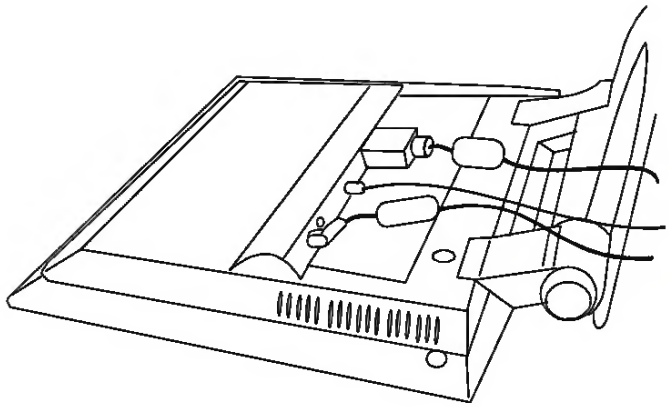
Installation

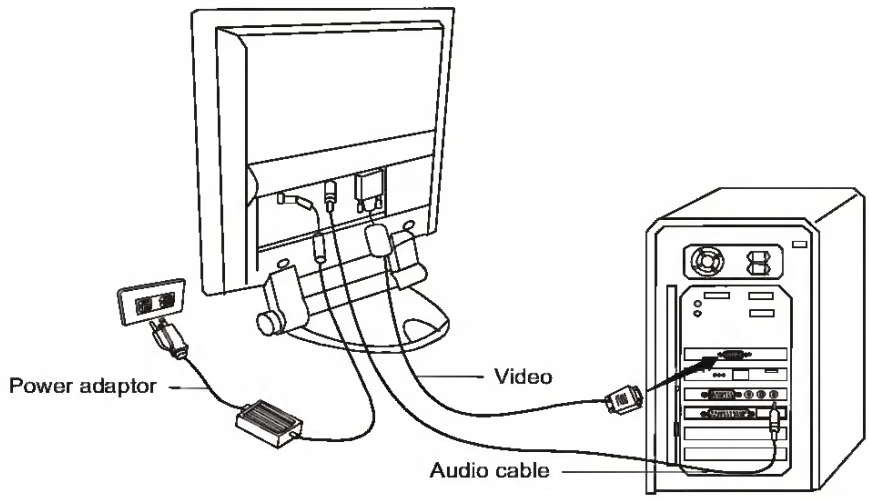
Hardware Installation

A. Make sure that the computer and monitor's power are both turned off. Please follow the steps to install your LCD monitor.

1 . Connect the signal cable and power adaptor to Acer LCD monitor.
2 . Connect the audio cable to the Audio Input of Acer LCD monitor.
3 . Please connect power cord to power adaptor first and then connect the power adaptor to LCD monitor.



B. Connect the signal cable to the VGA output of the graphics card on the computer.
C. Connect the audio cable to your computer.
D. Connect the power cord at the back of the monitor to an AC power socket. Please make sure that the socket is not blocked or covered, so you can disconnect the unit from AC supply if you need to. Your monitor is equipped with an automatic power supply for a voltage range from 100 to 240 Volt at a frequency of 50 to 60 Hz. Be sure that your local power is within the supported range. If you are unsure, ask your electricity supplier.



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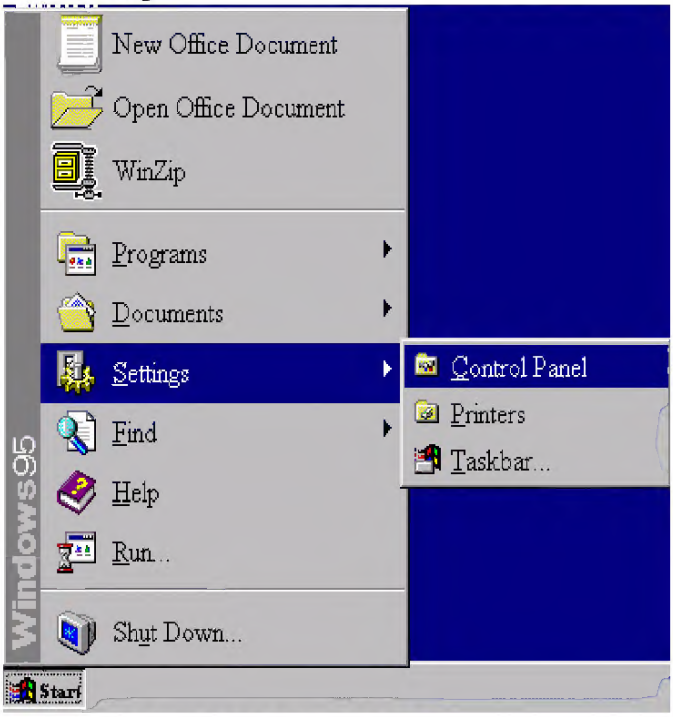
Software Installation

A. Microsoft® Windows® 95 / 98 / 2000

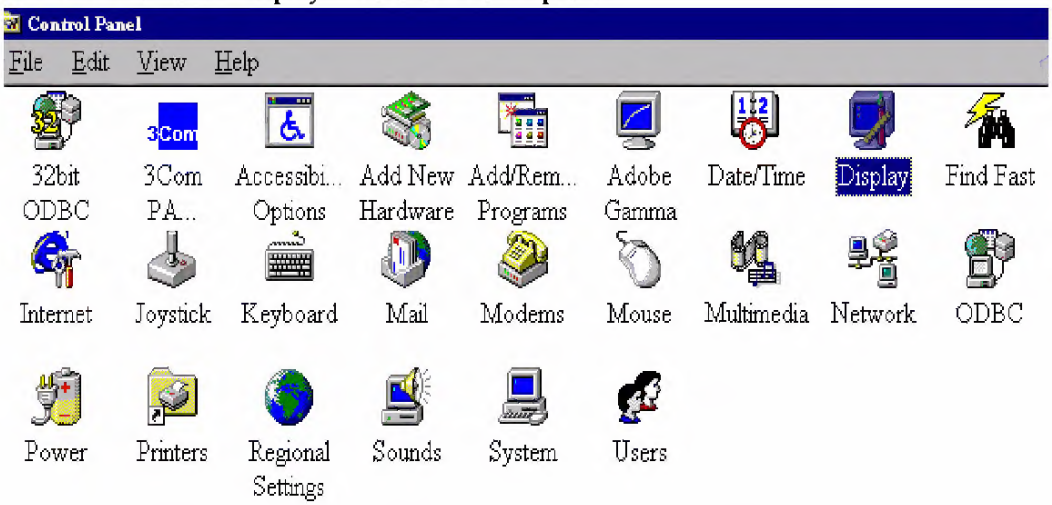
If you are using Windows 95, Windows,98 or Windows 2000 as an operating system, you have to set up the correct monitor driver.

Windows 95. The first time you start Windows with a new monitor, the system will detect it and automatically installs the driver for plug and play displays. To install tbe current driver from CD, proceed as follows:

1. Insert "**Acer LCD Monitor**" CD-ROM into your CD-ROM Driver.
2. Click "**Start**" then "**Settings**".



3. Double click the "**display**" icon in the **control panel**.



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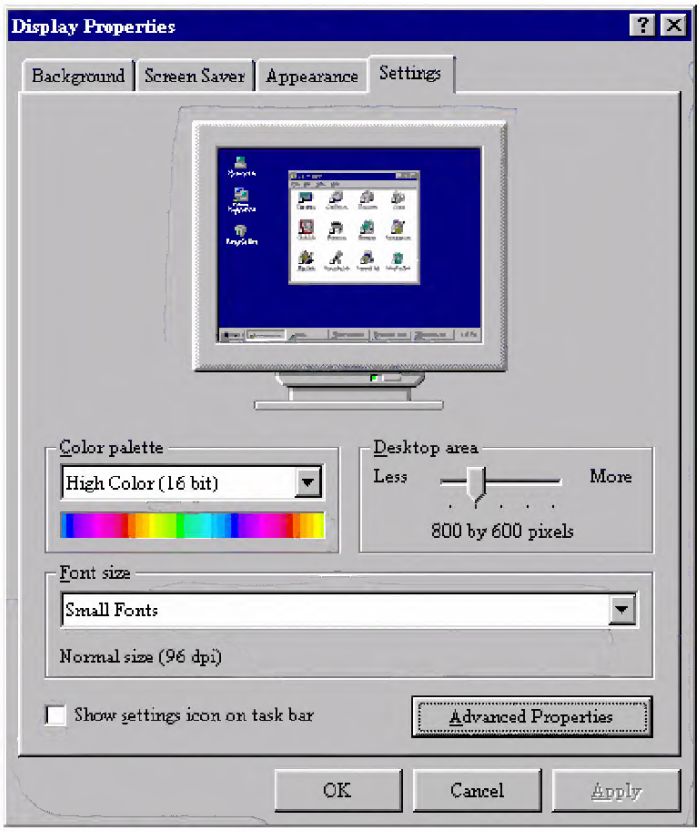
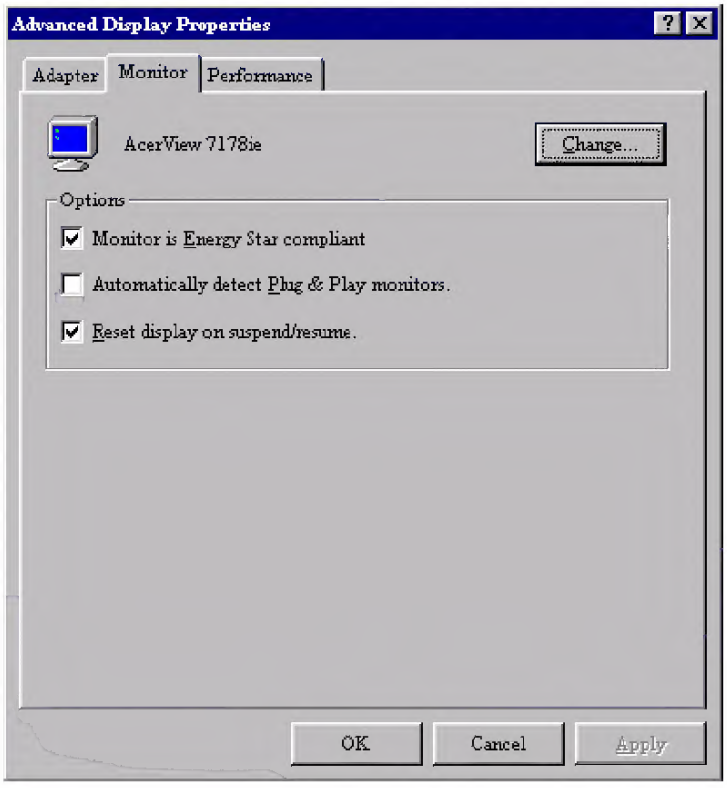
4. From the "**Display properties**" window, select the "**Settings**" tab. Click the "**Advanced Properties**" hutton in the hottom right corner.



5. Select the "**Monitor**" tah. Click the "**Change**" hutton in the top right corner.



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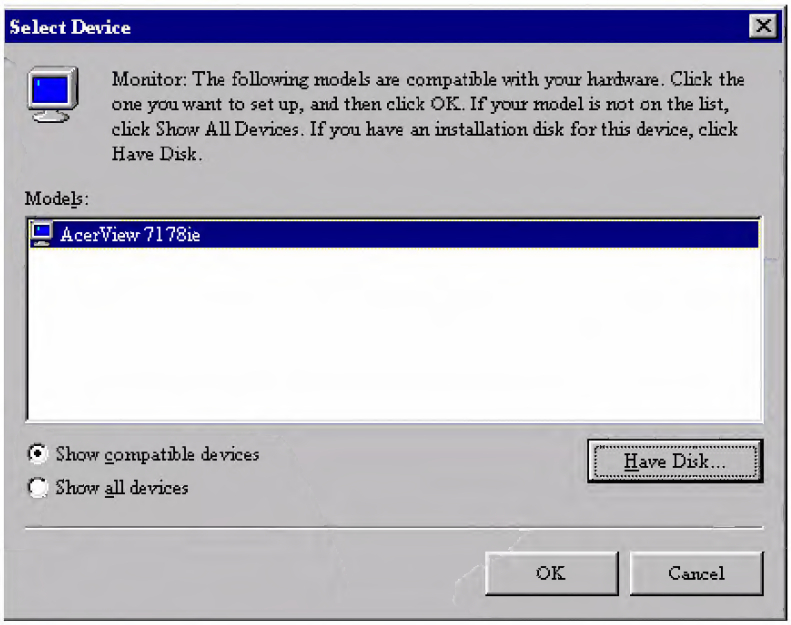
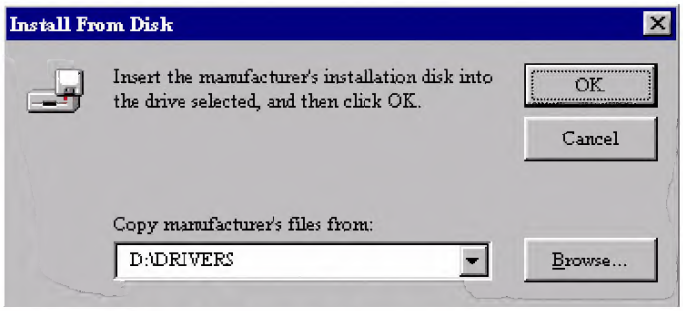
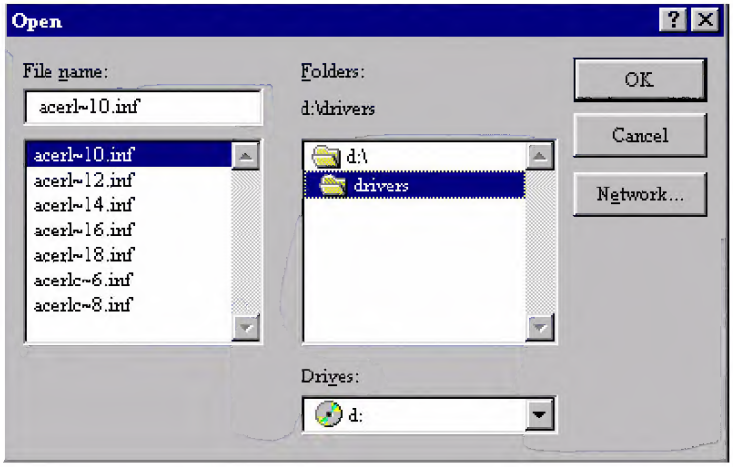
6. Now click the "**Have disk**" button in the bottom right corner. Another window appears, select the "**Browse**" button.


Select Device
Monitor: The following models are compatible with your hardware. Click the one you want to set up, and then click OK. If your model is not on the list, click Show All Devices. If you have an installation disk for this device, click Have Disk.
Models:
AcerView 7178ie
Show compatible devices
Show all devices
Have Disk...
OK
Cancel



7. The drive selection is located at the bottom of the window in the center. Insert the CD supplied with your monitor into your computer and select the CD-drive.
8. In the field above the drive selection, change to the "**Drivers**" folder. The current driver files are located there. Press "**OK**" and the window closes.



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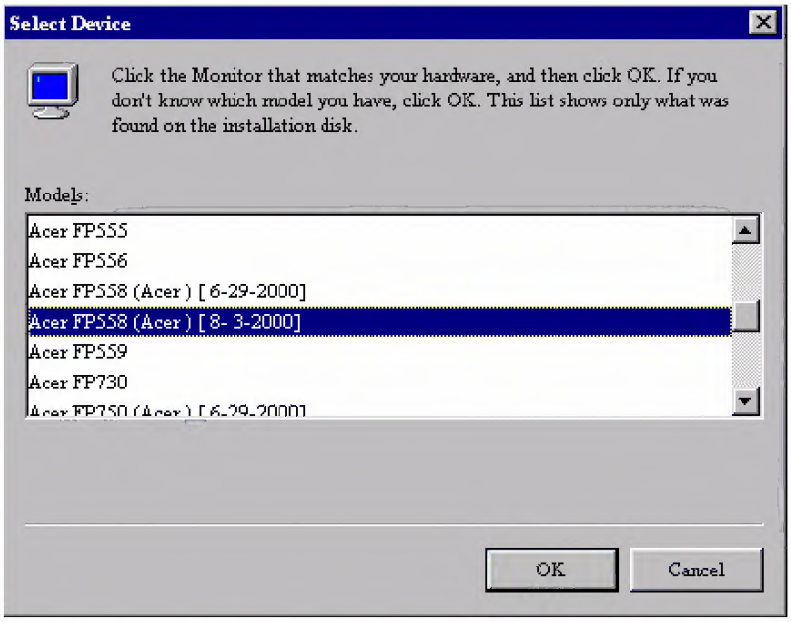
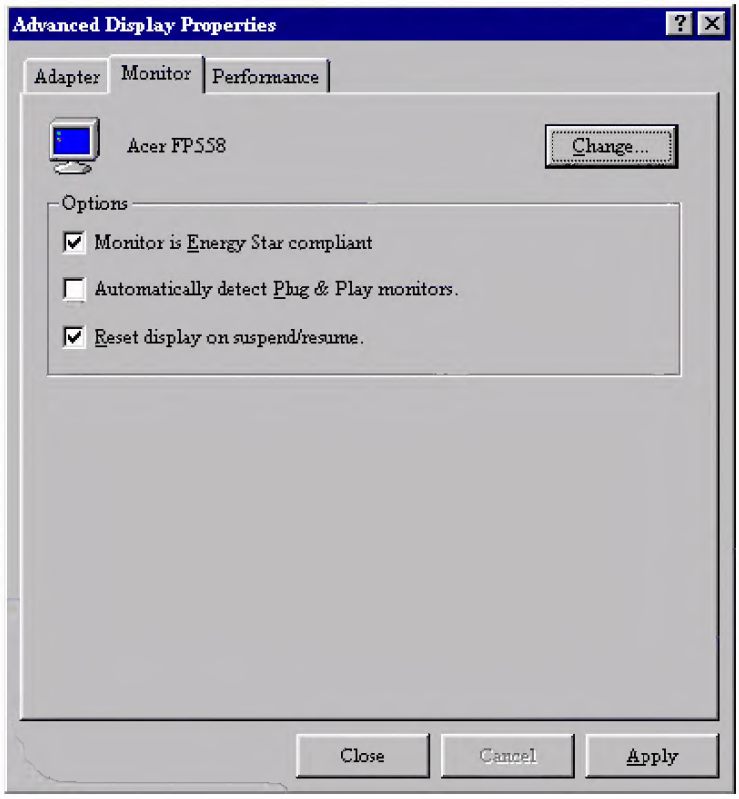
9. By pressing "**OK**" again in the next window you will be given a list of compatible devices. Select "**FP581**" from the list and press "**OK**" again.


Select Device
Click the Monitor that matches your hardware, and then click OK. If you don't know which model you have, click OK. This list shows only what was found on the installation disk.
Models:
Acer FP555
Acer FP556
Acer FP558 (Acer) [6-29-2000]
Acer FP558 (Acer) [8- 3-2000]
Acer FP559
Acer FP730
OK
Cancel

10. Now you are back to "**Advanced Display Properties**". Close this window by clicking "**OK** " and confirm the following messages with "**Yes**". Click "**OK**" and "**Yes**" again. The installation is now completed. You can close "**Display Properties**".



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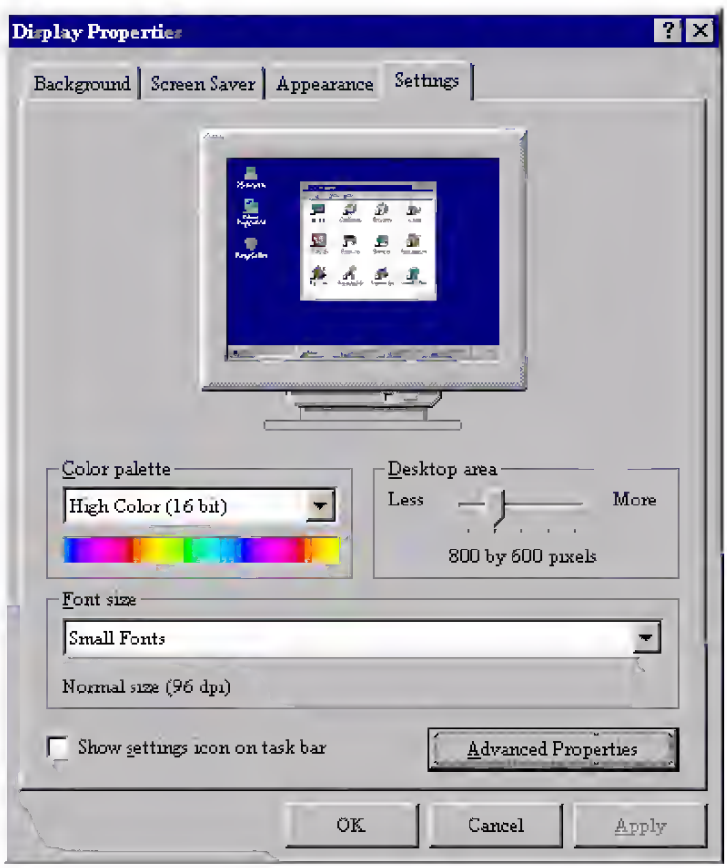
Windows98. To manually install or update the driver, perform the following steps:

1. Open the control panel and double-click "**Display**" icon.

2. From the "**Display Properties**" window, select the "**Settings**" tab. Click the "**Advanced Properties**" button in the bottom right corner.



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3. Select the "**Monitor**" tab. Click the "**Change**" button in the top right corner.

4. Now the "**Update Device Driver Wizard**" opens. Confirm by clicking "**Next**".

Update Device Driver Wizard
This wizard searches for updated drivers for:
Unknown Device
A device driver is a software program that makes a hardware device work.
Upgrading to a newer version of a device driver may improve the performance of your hardware device or add functionality.
< Back
Next >
Cancel

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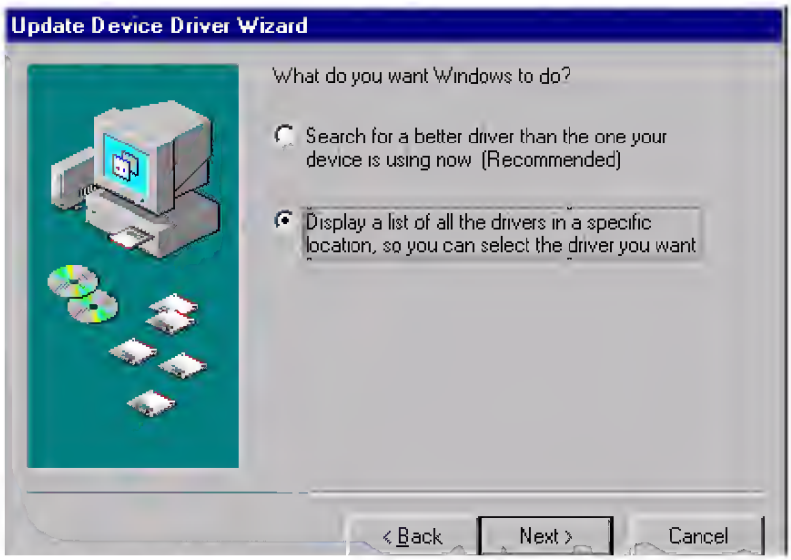
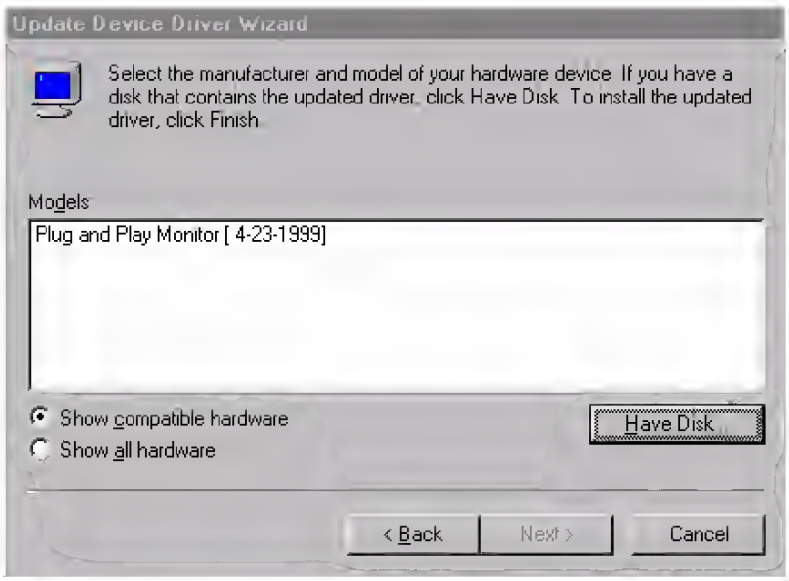
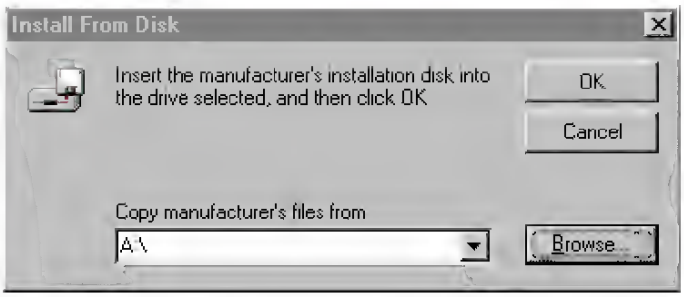
5. Select "**Display a list of all drivers in a specific location, so you can select the driver you want.**" and press "**Next**".


Update Device Driver Wizard
What do you want Windows to do?
Search for a better driver than the one your device is using now (Recommended)
Display a list of all the drivers in a specific location, so you can select the driver you want
< Back
Next >
Cancel

6. Now click the "**Have disk**" button in the bottom right corner. Another window appears, select the "**Browse**" button.


Update Device Driver Wizard
Select the manufacturer and model of your hardware device. If you have a disk that contains the updated driver, click Have Disk. To install the updated driver, click Finish.
Models
Plug and Play Monitor [4-23-1999]
Show compatible hardware
Show all hardware
Have Disk...
< Back
Next >
Cancel



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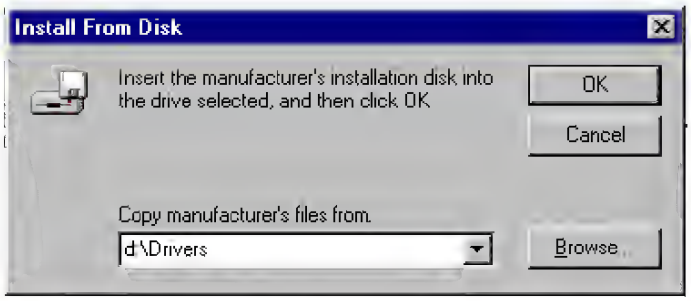
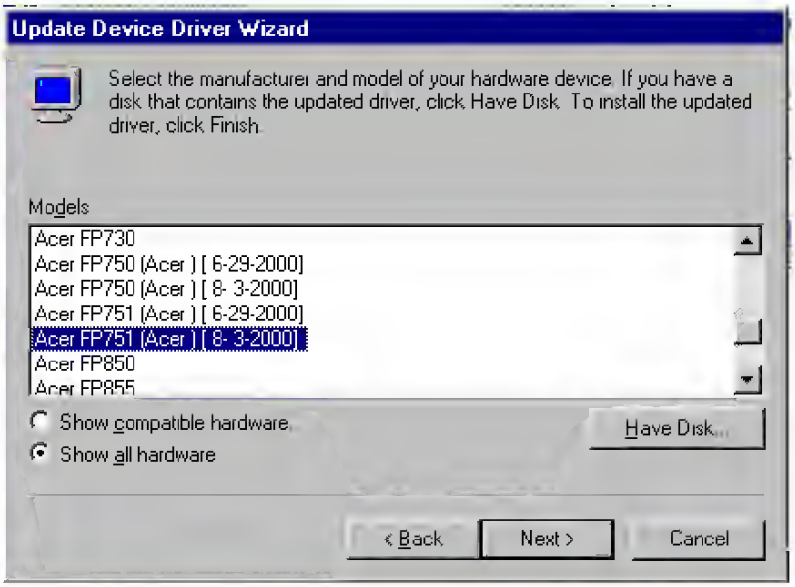
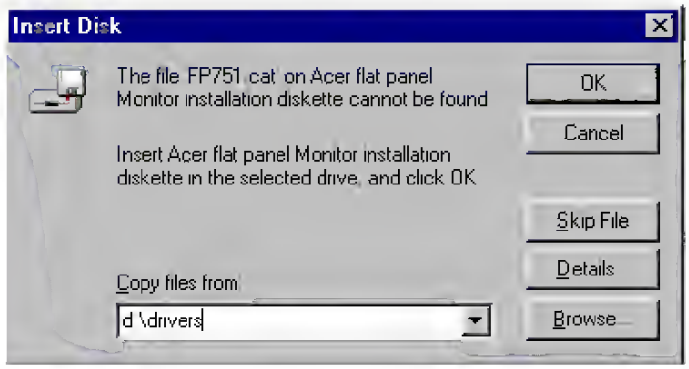
7. The drive selection is located at the bottom of the window in the center. Insert the CD supplied with your monitor into your computer and select the CD-drive.



8. By pressing "**OK**" again in the next window you will be given a list of compatible devices. Select "**FP581**" from the list and press "**Next**" again.


Update Device Driver Wizard
Select the manufacturer and model of your hardware device. If you have a disk that contains the updated driver, click Have Disk. To install the updated driver, click Finish.
Models
Acer FP730
Acer FP750 (Acer) [6-29-2000]
Acer FP750 (Acer) [8- 3-2000]
Acer FP751 (Acer) [6-29-2000]
Acer FP751 (Acer) [8- 3-2000]
Acer FP850
Acer FP855
Show compatible hardware
Show all hardware
Have Disk...
< Back
Next >
Cancel

9. A "Insert Disk" dialogue box appears. Click "OK", and then click "Skip File".



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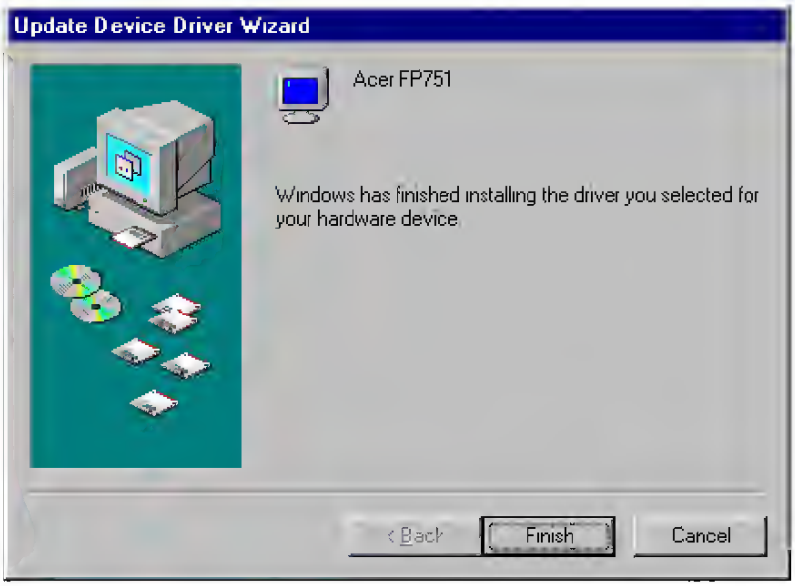
10. Close "**Update Device Driver Wizard**" by click "Finish" to complete the installation.



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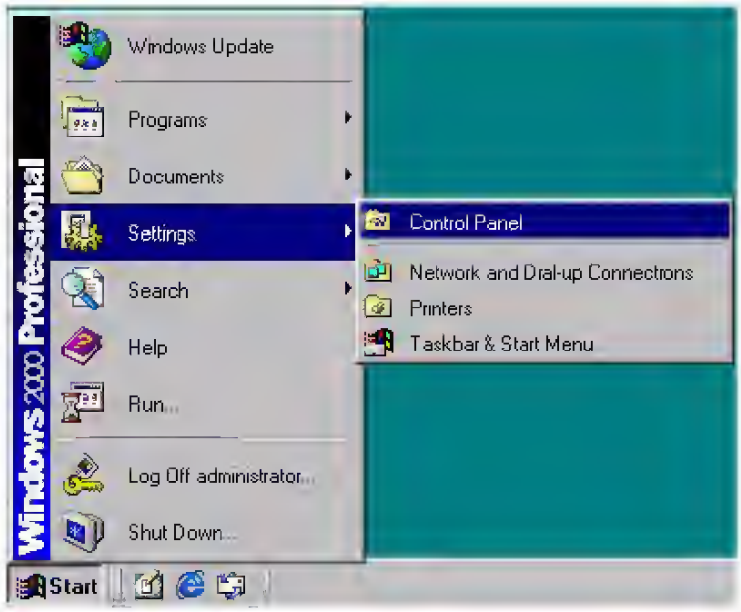
Windows 2000 . The first time you start Windows with a new monitor, the system will detect it and automatically starts with the "**Add New Hardware Wizard**". Carry out the instructions beginning at step 4.

1. Insert "**Acer LCD Monitor**" CD-ROM into your CD-ROM Driver.
2. Click "**Start**" then "**Settings**".



3. Open the control panel and double click on the "**Display**" icon.

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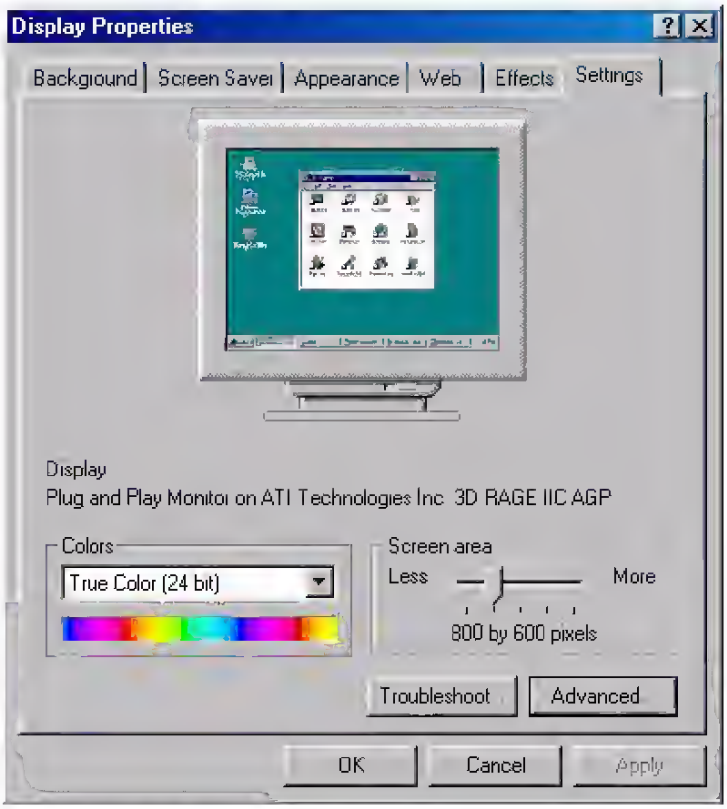
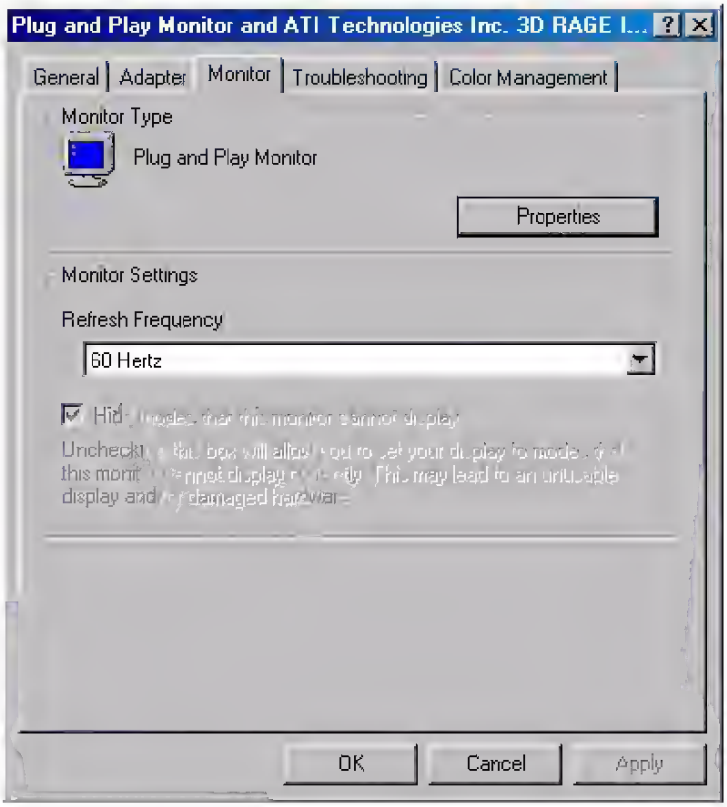
4. From the "**Display Properties**" window, select the "**Settings**" tab. Click the "**Advanced Properties**" button in the bottom right corner.



5. Select "**Monitor**" then click "**Properties**".



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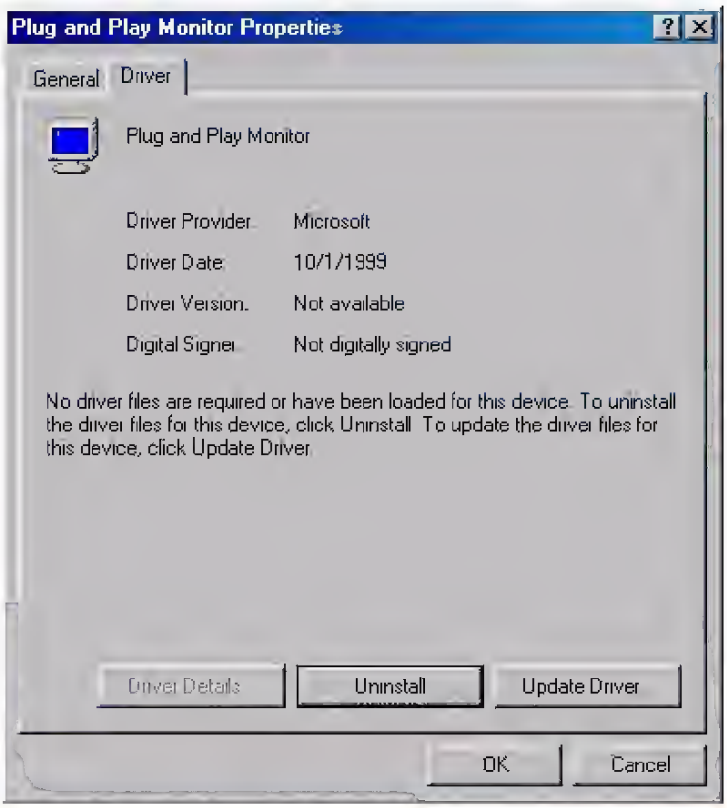
6. Select "**Driver**" tab then click "**Update Driver**".


Plug and Play Monitor Properties
General
Driver
Plug and Play Monitor
Driver Provider: Microsoft
Driver Date: 10/1/1999
Driver Version: Not available
Digital Signer: Not digitally signed
No driver files are required or have been loaded for this device. To uninstall the driver files for this device, click Uninstall. To update the driver files for this device, click Update Driver.
Driver Details
Uninstall
Update Driver
OK
Cancel

7. The "**Upgrade Device Driver Wizard**" will pop up. Then Click "**Next**".

Upgrade Device Driver Wizard
Welcome to the Upgrade Device Driver Wizard
This wizard helps you upgrade a device driver for a hardware device.
To continue, click Next.
< Back
Next >
Cancel

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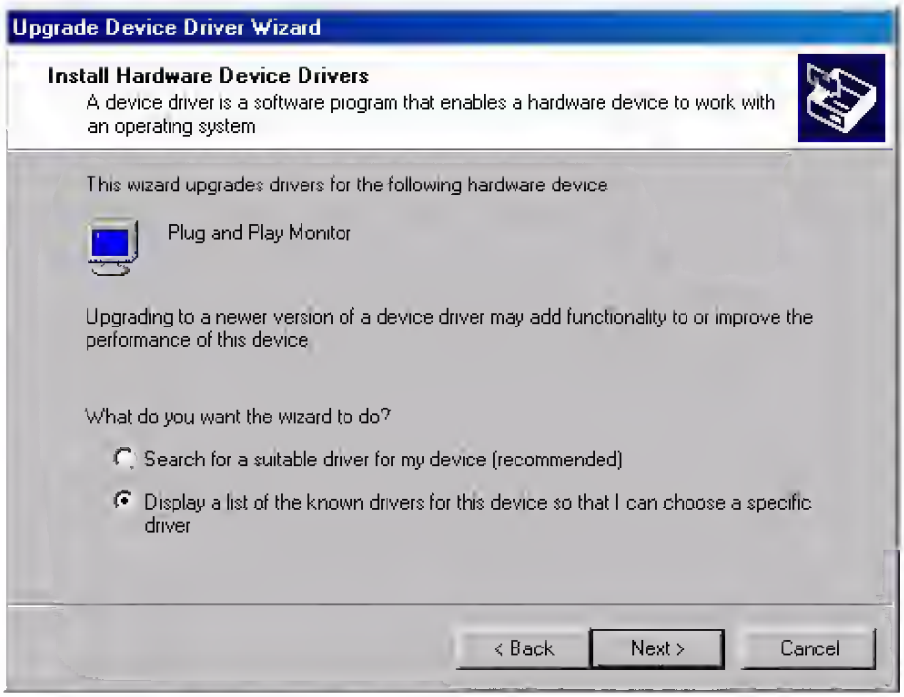
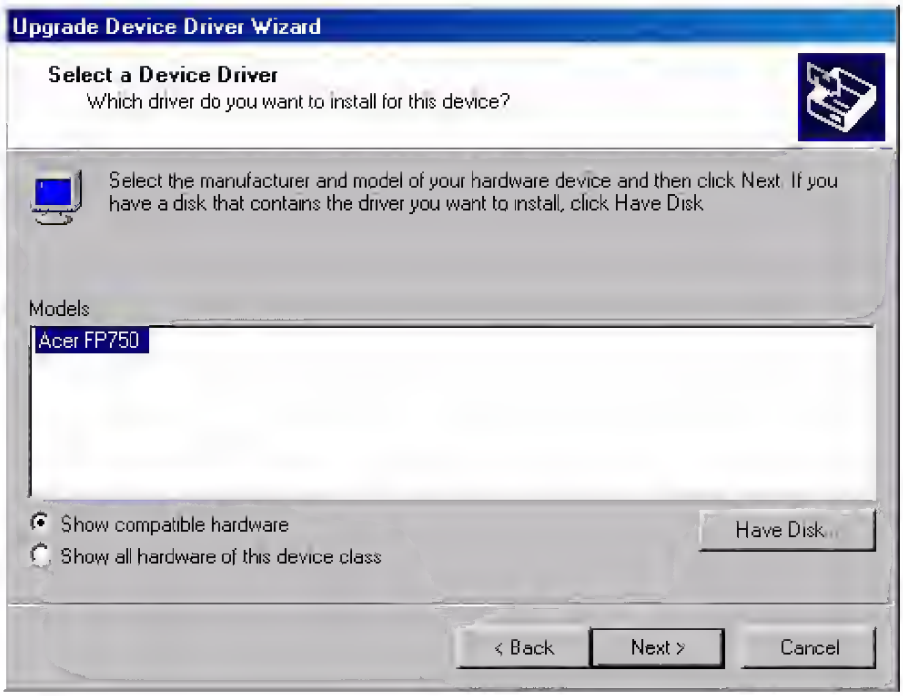
8. Select "**Display a list of the known drivers for this device so that I can choose a specific driver**" then click "**Next**".


Upgrade Device Driver Wizard
Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system
This wizard upgrades drivers for the following hardware device
Plug and Play Monitor
Upgrading to a newer version of a device driver may add functionality to or improve the performance of this device
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< Back
Next >
Cancel

9. In the next window, click "**Have Disk**", then "**Install From Disk**" window will pop up, click "**Browse**", the "**Located File**" will pop up.


Upgrade Device Driver Wizard
Select a Device Driver
Which driver do you want to install for this device?
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Models
Acer FP750
Show compatible hardware
Show all hardware of this device class
Have Disk...
< Back
Next >
Cancel

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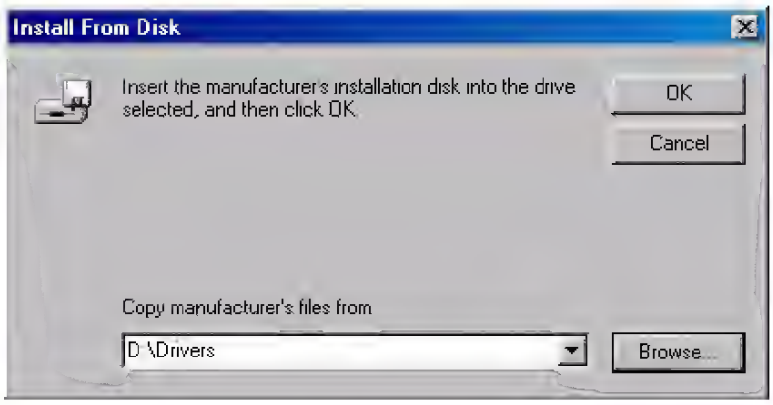
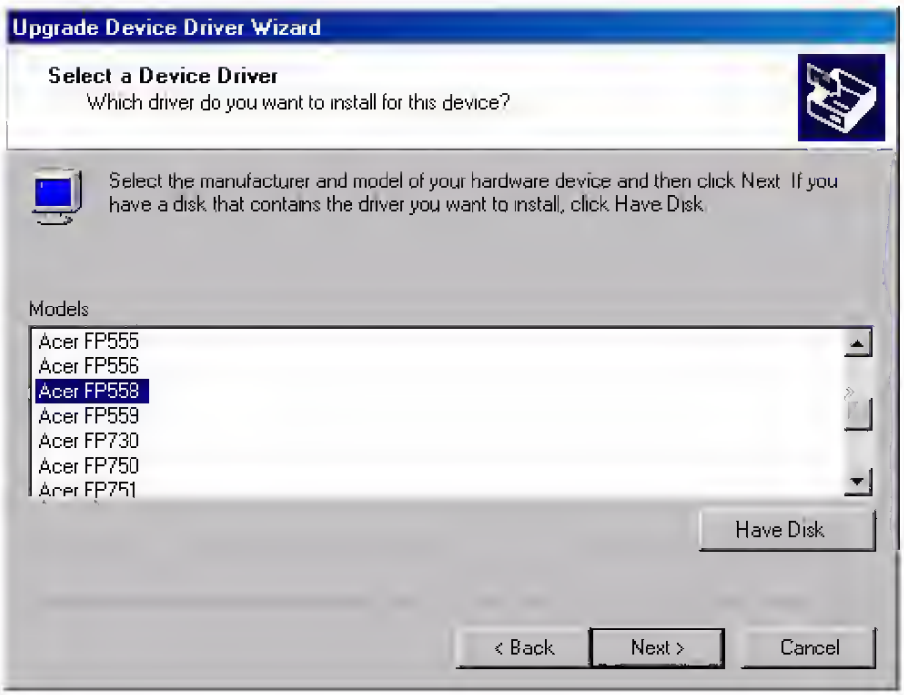


10. In this window, click on the arrow (▼) of '**Look in**" box, then select your CD ROM Drive.


Upgrade Device Driver Wizard
Select a Device Driver
Which driver do you want to install for this device?
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Models
Acer FP555
Acer FP556
Acer FP558
Acer FP559
Acer FP730
Acer FP750
Acer FP751
Have Disk
< Back
Next >
Cancel

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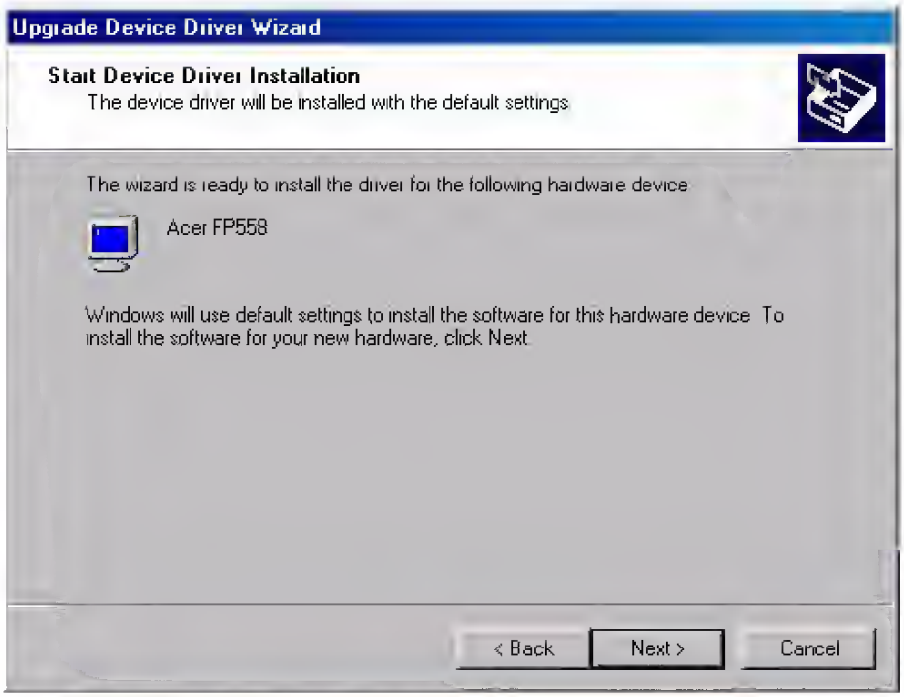
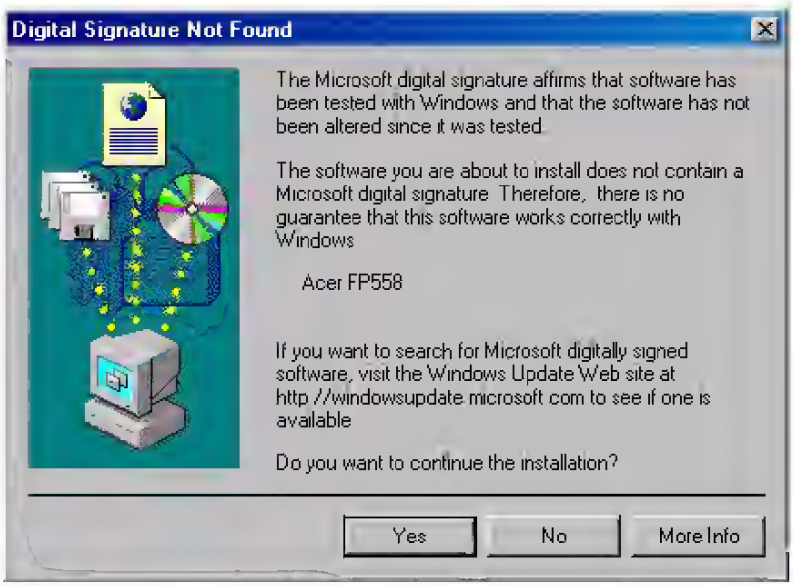
11. In the list of CD-ROM, select "**Drivers**" folder then click "**Open**" twice, then click "**OK**", Select the your LCD Mode (FP581) from the list in the next window then click "**Next**" twice.


Upgrade Device Driver Wizard
Start Device Driver Installation
The device driver will be installed with the default settings
The wizard is ready to install the driver for the following hardware device:
Acer FP558
Windows will use default settings to install the software for this hardware device. To install the software for your new hardware, click Next.
< Back
Next >
Cancel

12. The "**Digital Signature Not Found**" window will appear, click "**Yes**", then click "**Finish**".


Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
Acer FP558
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

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13. Now the new drivers are installed to your computer.

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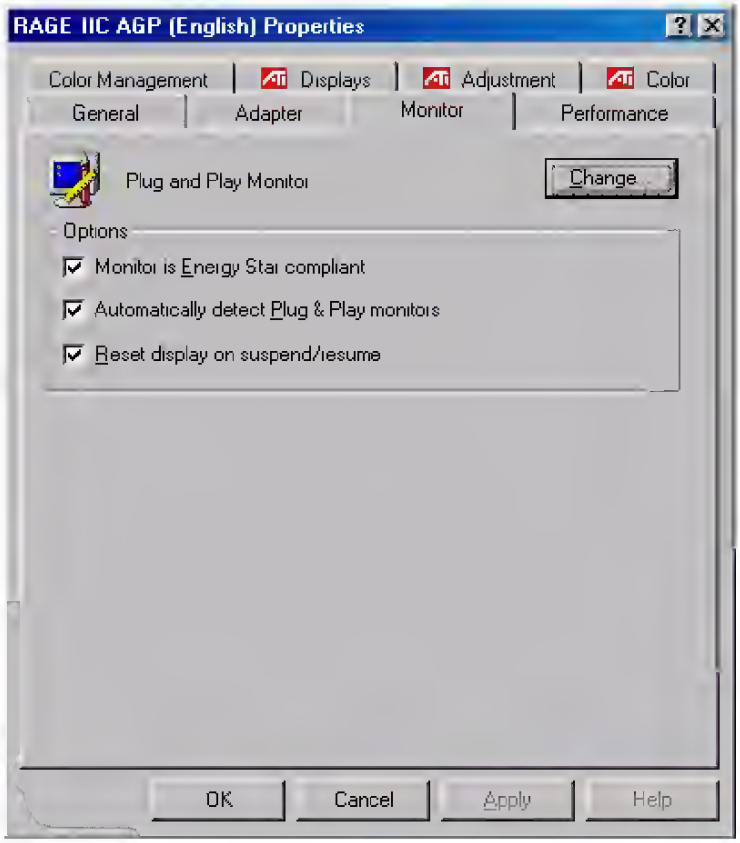
Windows ME . To manually install or update the driver, perform the following steps:

1. Click "Start", "**Settings**", "**Control Panel**" and then double-click "**Display**".
2. In the Display Properties window, click the "**Settings**" tab and click "**Advanced...**".
3. Click the "**Monitor**" tab and then click "**Change**".



4. "**Update Device Driver Wizard**" dialogue box appears. Choose "**Specify the location of the driver (advanced)**" and then click "**Next**".

Update Device Driver Wizard
This wizard searches for updated drivers for:
Unknown Device
Windows can search for and install an updated driver to replace the one currently being used by your hardware. Or, you can specify the location of another driver.
What would you like to do?
Automatic search for a better driver (Recommended)
Specify the location of the driver (Advanced)
< Back
Next >
Cancel

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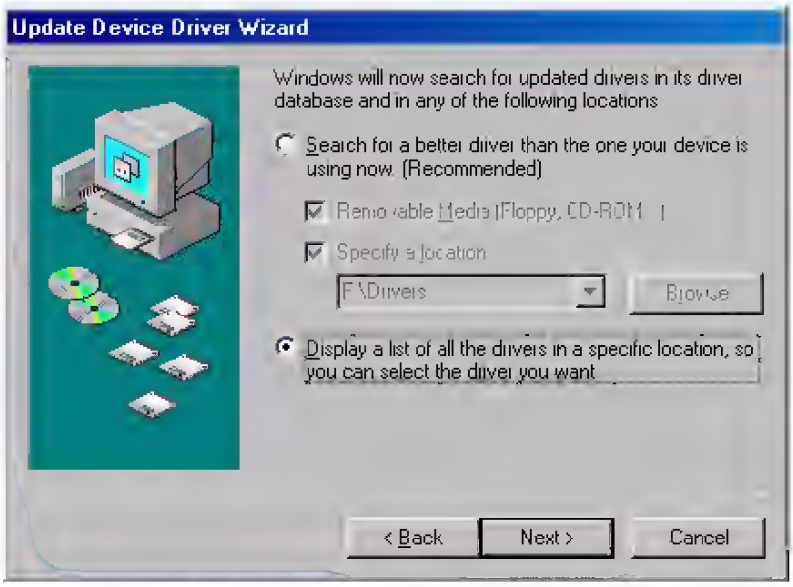
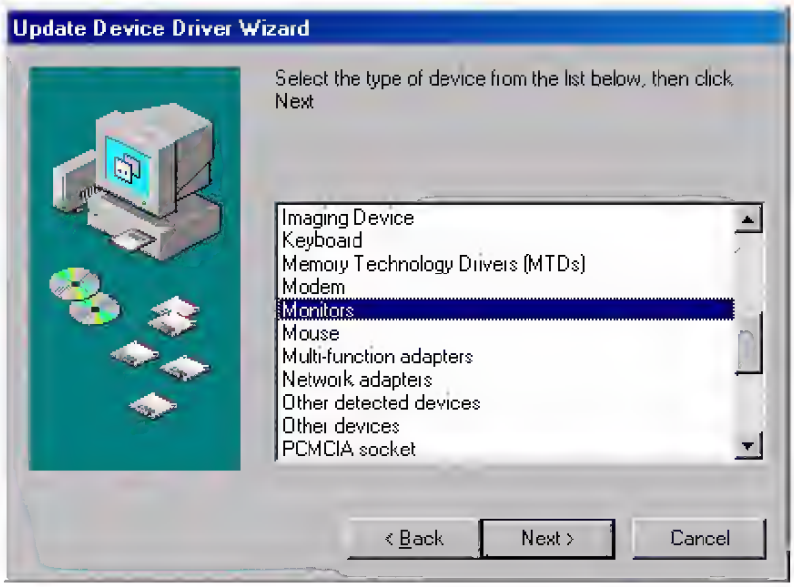
5. Choose "**Display a list of all the drivers in a specific location, so you can select the driver you want**" and click "**Next**".


Update Device Driver Wizard
Windows will now search for updated drivers in its driver database and in any of the following locations
Search for a better driver than the one your device is using now. (Recommended)
Removable Media (Floppy, CD-ROM...)
Specify a location
F:\Drivers
Browse...
Display a list of all the drivers in a specific location, so you can select the driver you want
< Back
Next >
Cancel

6. Choose "**Monitor**" from the list and then click "**Next**".



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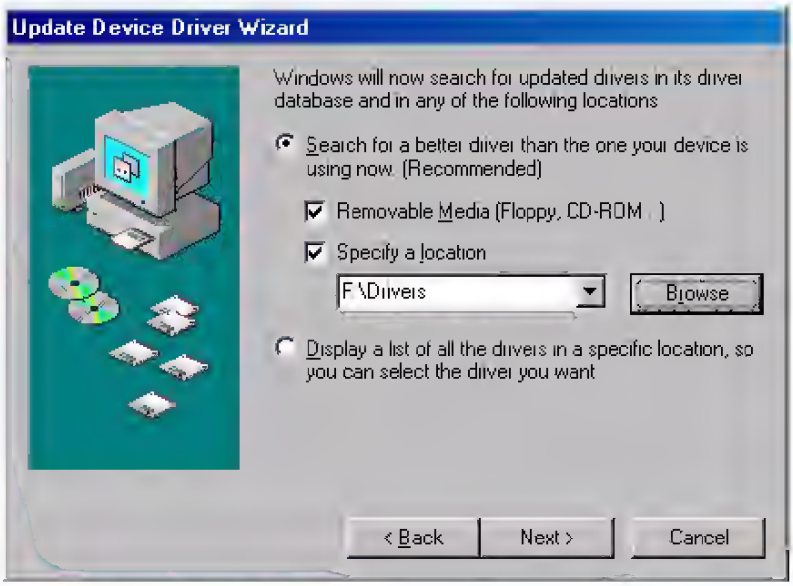
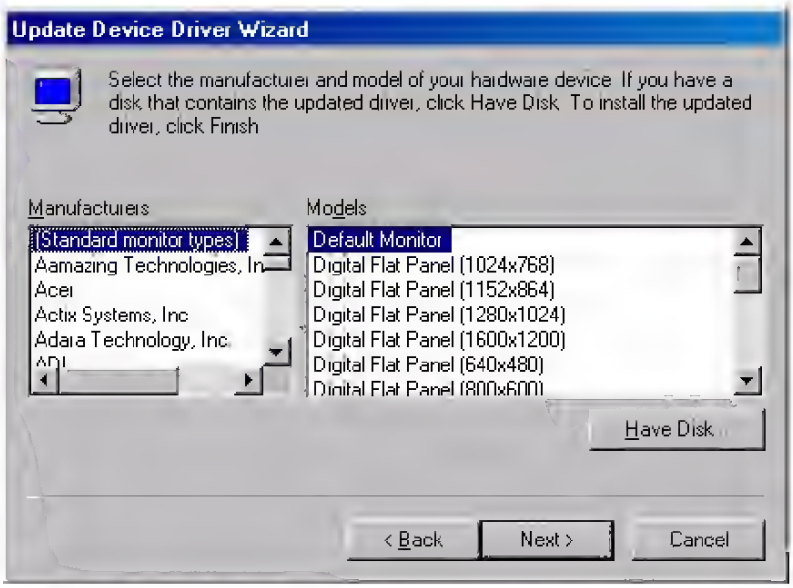
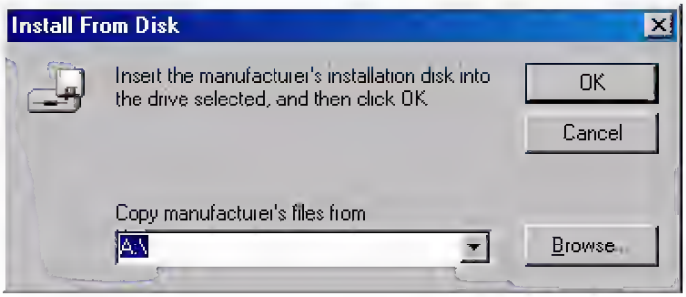
7. Choose "**Display a list of all the drivers in a specific location, so you can select the driver you want.**".


Update Device Driver Wizard
Windows will now search for updated drivers in its driver database and in any of the following locations
Search for a better driver than the one your device is using now. (Recommended)
Removable Media (Floppy, CD-ROM...)
Specify a location
F:\Drivers
Browse...
Display a list of all the drivers in a specific location, so you can select the driver you want
< Back
Next >
Cancel

8. Click "**Have disk**" and then click "**Browse...**".


Update Device Driver Wizard
Select the manufacturer and model of your hardware device. If you have a disk that contains the updated driver, click Have Disk. To install the updated driver, click Finish.
Manufacturers
Models
(Standard monitor types)
Aamazing Technologies, Inc.
Acer
Actix Systems, Inc.
Adara Technology, Inc.
Default Monitor
Digital Flat Panel (1024x768)
Digital Flat Panel (1152x864)
Digital Flat Panel (1280x1024)
Digital Flat Panel (1600x1200)
Digital Flat Panel (640x480)
Have Disk...
< Back
Next >
Cancel

9. Insert "**Acer LCD monitor**" into your CD-ROM and type d:\ (change the driver letter to match your CD-ROM driver if it is not drive D). Enter "**Drivers**" folder to select the model from the list left. Click "**OK**".



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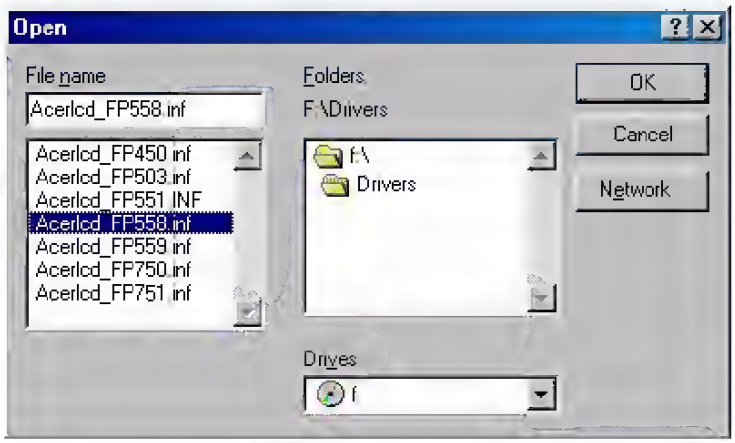
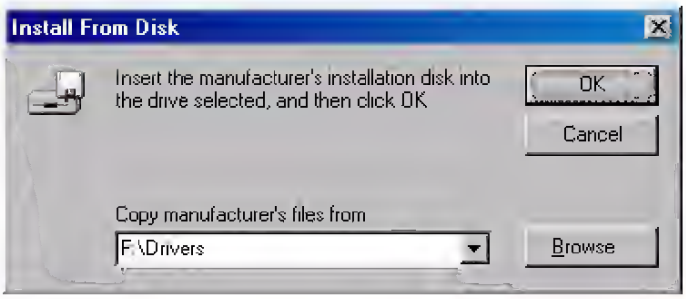
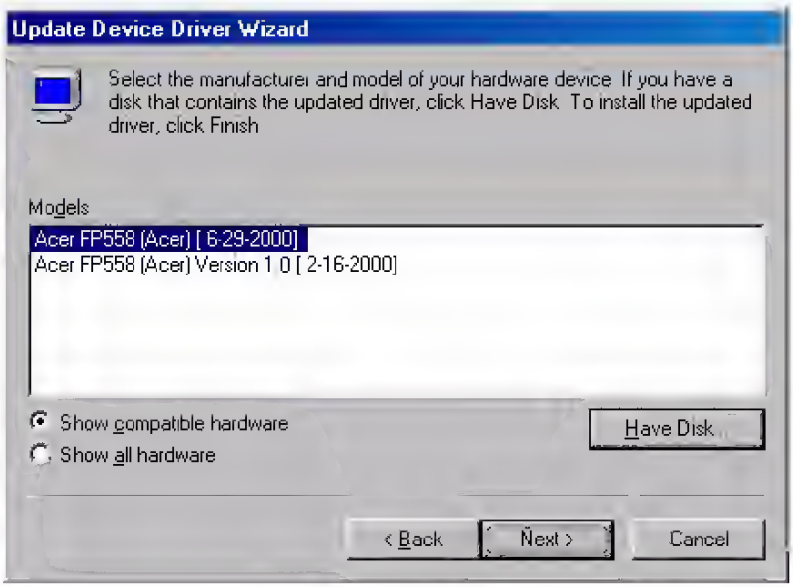


10. Back to "**Install From disk**" and click "**OK**". The dialogue box "**Update Device Driver Wizard**" appears. Choose the model from the list, then click "**Next**".




Update Device Driver Wizard
Select the manufacturer and model of your hardware device. If you have a disk that contains the updated driver, click Have Disk. To install the updated driver, click Finish.
Models
Acer FP558 (Acer) [6-29-2000]
Acer FP558 (Acer) Version 1.0 [2-16-2000]
Show compatible hardware
Show all hardware
Have Disk
< Back
Next >
Cancel

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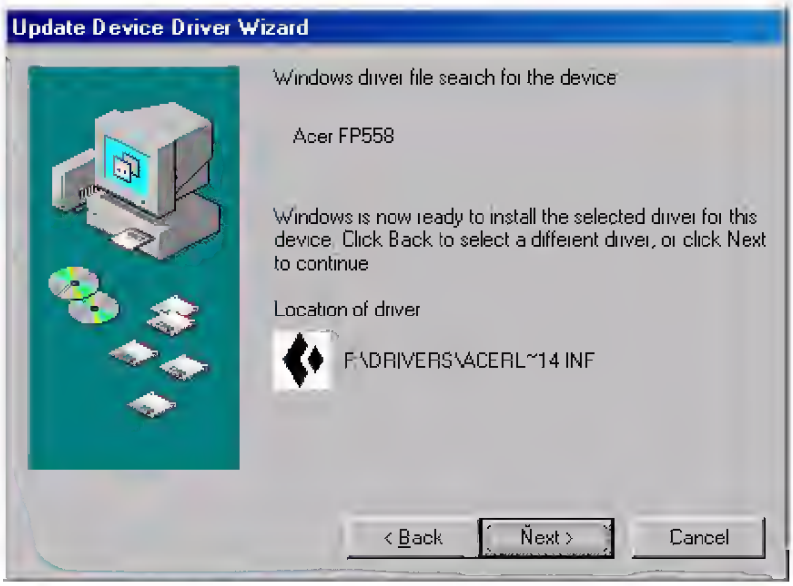
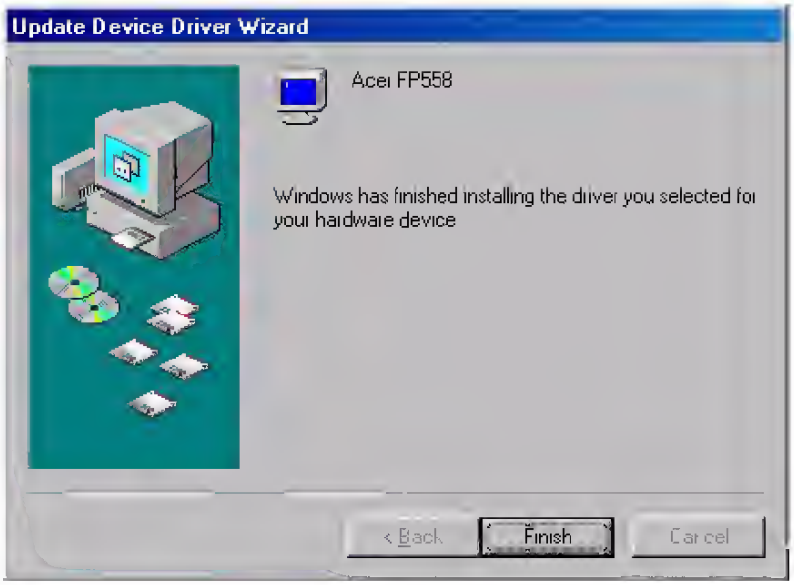
11. Click "**Next**".


Update Device Driver Wizard
Windows driver file search for the device
Acer FP558
Windows is now ready to install the selected driver for this device. Click Back to select a different driver, or click Next to continue
Location of driver
F:\DRIVERS\ACERL~14.INF
< Back
Next >
Cancel

12. Click "**Finish**" to complete the installation.



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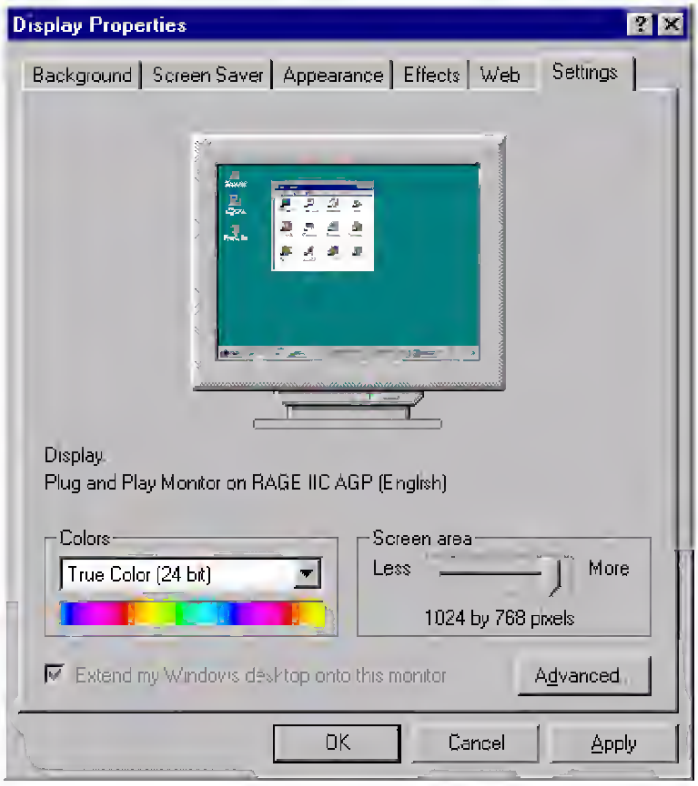
B. Choosing the best resolution

Due to the technology of an LC display, it always provides a fixed resolution. For the FP581 this is a resolution of 1024x768. This is called the so-called native resolution, which also represents the maximal resolution. Lower resolutions are displayed on a full screen through an interpolation circuit. Flaws do occur with the interpolated resolution compared to the native resolution. If you want to have all the advantages of LCD technology you must use the native resolution. Using Windows 95/ 98 /2000 you can change the resolution as follows:

1. Double-click the "**Display**" icon in the control panel.

2. From the "**Display Properties**" window, select the "**Settings**" tab. There is a slider on the right-hand side in the middle of the window. There you can alter the resolution.
3. Set a resolution of 1024x768.



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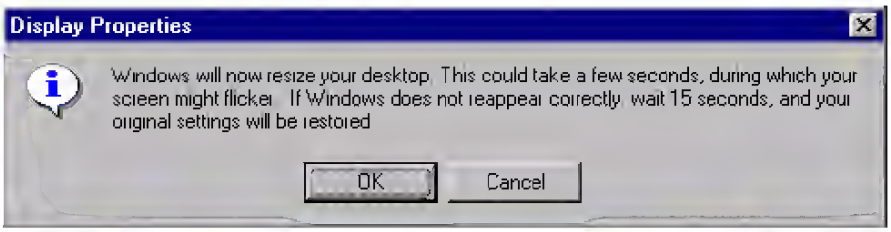
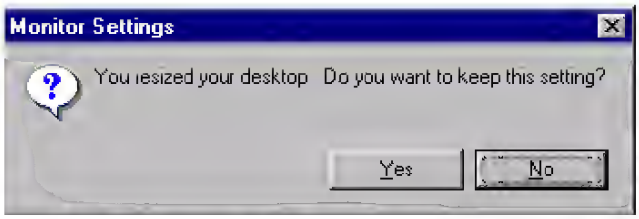
4. In the subsequent windows press: "**Apply**", "**OK**" and "**Yes**".


Display Properties
Windows will now resize your desktop. This could take a few seconds, during which your screen might flicker. If Windows does not reappear correctly, wait 15 seconds, and your original settings will be restored
OK
Cancel



5. You can now close "**Display Properties**".

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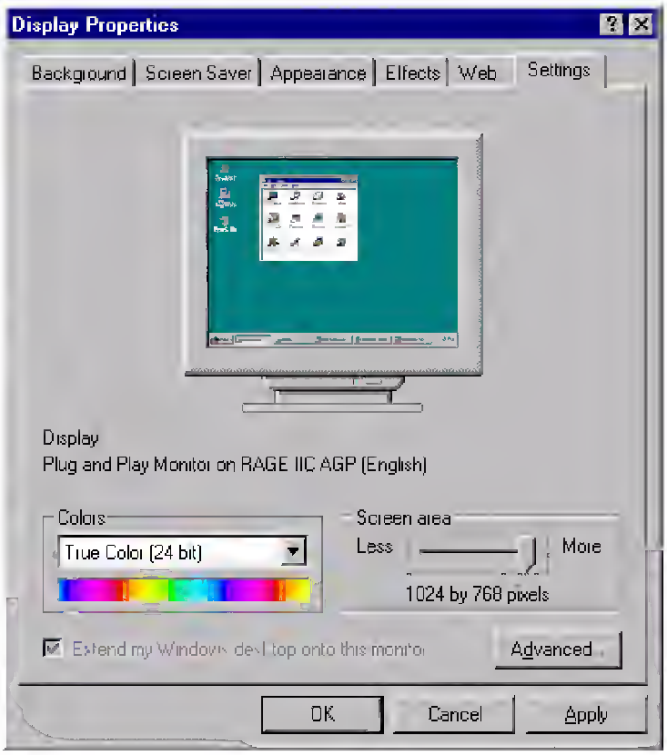
C. Refresh Rate Selection

There is no need to choose the highest possible refresh rate on a LC display. It is not technically possible for an LC display to flicker. Even at a refresh rate of 60 Hz you will get an absolutely flicker-free image. More important is that you make sure that you use one of the factory modes. In contrast to a modern CRT monitor, which is a multiscan monitor, the display is a multi-frequency monitor. This means, the best results are only obtained by using the factory modes. You will find a table with the factory modes in this user's guide. For the native resolution of 1024x768, these, for example, are 60, 70 and 75 Hertz, not 72 Hz, however. In Windows 95/98/2000 you can change the refresh rate as follows:

1. Double click the "**Display**" icon in the control panel.

2. From the "**Display Properties**" window, select the "**Settings**" tab. Click the "**Advanced properties**" button in the bottom right corner.



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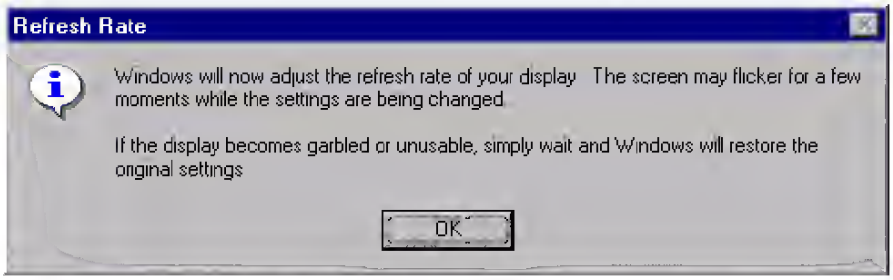
3. Select the "**Adapter**" tab. The refresh rate selection field is located in the center at the bottom of the window.

4. Choose a refresh rate from the table with the factory modes, which can be found in the user's guide, and select this in the settings field.
5. In the subsequent windows press "**Change**", "**OK**" and "**Yes**".


Refresh Rate
Windows will now adjust the refresh rate of your display. The screen may flicker for a few moments while the settings are being changed.
If the display becomes garbled or unusable, simply wait and Windows will restore the original settings.
OK

6. You can now close "**Display Properties**".

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D. Picture Optimization

The easiest way to obtain an optimal picture is by using the *ikey* function. This only works reliably, if you use the supplied adjustment software (auto.exe) and if the device is being used in one of the factory modes.

1. Start the auto.exe program from the CD, supplied with the monitor. A test pattern appears.
2. Now press the *ikey*. The device carries out an automatic adjustment. In most cases optimal results will be obtained. You can quit the auto.exe with a single mouse click and clicking on "**Exit**".

If you are still not satisfied with the result, you can still attempt to enhance the image by means of manual adjust.

1. To do this restart the auto.exe test pattern, which is the best way of observing possible changes. You also can use any other image, such as the desktop of an operating system.
2. You can access the OSD menu by pressing the **Enter** button on the monitor.
3. Using the "<" or ">" key on the monitor, navigate to the submenu for the Geometry values and then press **Enter**.
4. Adjust the "**Pixel Clock**" by pressing "<" or ">" key to optimize the picture quality.
5. To Exit **Clock** submenu by pressing **Exit** twice (Geometry submenu).

If you need further adjustment, back to Geometry submenu and select "**Phase**" by pressing "<" or ">" key to reach the best status. If you are still not satisfied with the result, repeat the procedure using a different refresh rate.

You must use one of the factory modes. If the *i-key* is not working, or the "**Not supported mode**" message is on the OSD you are not using one of the supported modes. If you are having difficulties generating a supported mode, ask the manufacturer of your graphics card for assistance.

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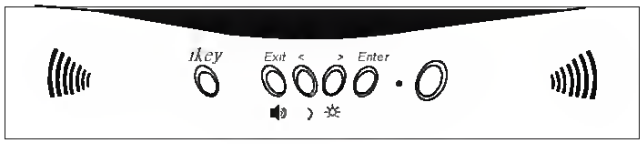
Adjusting the Monitor

A Look at the Control Panel

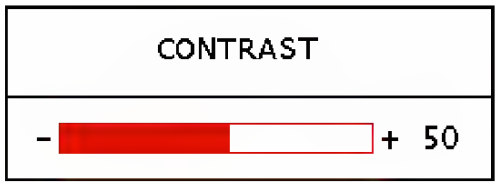


There are 6 keys for user's control including "*iKey*", "Exit", "Enter", "<" and ">" key and a power swith.The following descriptions are the introduction of these keys & switch.

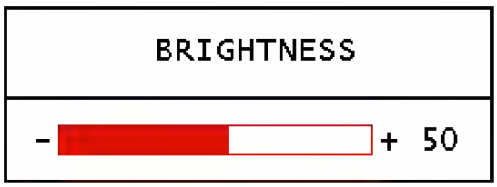
1. "Power": Turn the power on or off.
2. "*iKey*" : Adjust vertical position, phase, horizontal position and pixel clock automatically.
3. "Exit" key: Back to main menus, save menu or exist OSD menu without saving.
4. "Enter" key: Enter sub-menus, select items or save items.
5. "<": For Left adjustment. Left key is the hot key for Contrast adjustment.
6. ">": For Right adjustment. Right key is the hot key for Brightness adjustment.

Hot Key Mode

Contrast hot-key

1. Press "<" key to enter the Contrast hot-key mode. 2. Press "<" or ">" key to make adjust ment. The scale can be adjusted from maximum (100) to minimum (0). 3. Press the "Exit" to leave OSD opera-tion. The adjustment can be auto-saved.	

Brightness hot-key

1. Press ">" key to enter the Brightness hot-key mode. 2. Press "<" or ">" key to make adjust-ment. The scale can be adjusted from maximum (100) to minimum (0). 3. Press the "Exit" to leave OSD opera-tion. The adjustment can be auto-saved.	

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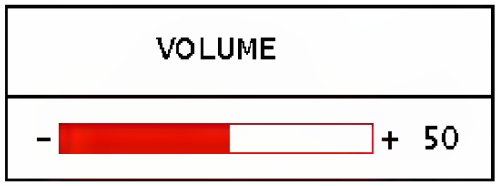
Volume hot-key

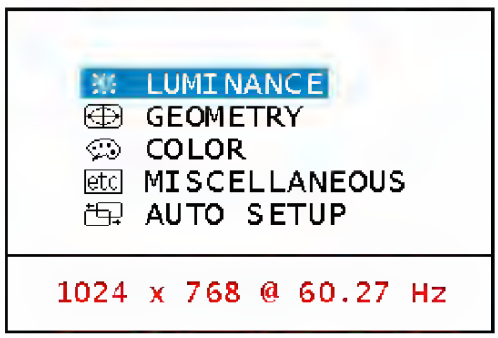
1. Press "Exit" key to enter the Voulme hot-key mode. 2. Press "<" or ">" key to make adjustment. The scale can be adjusted from maximum (100) to minimum (0). 3. Press the "Exit" to leave OSD operation. The adjustment can be auto-saved.	

Main Menu Mode

Control Functions Available in Main Menu

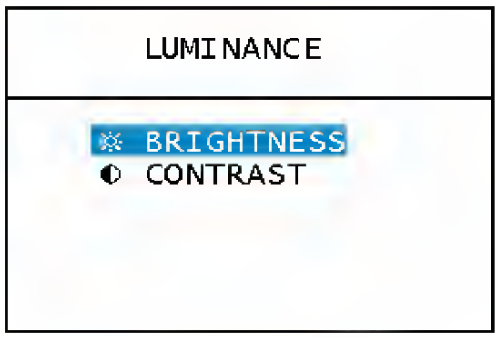
1. Luminance

Press "<"or ">" key to select this item and press "**Enter**" to enter sub-menu. There are two items for luminance adjustments.



Brightness: adjust the brightness of the display.

Contrast: adjust the difference between the light and dark areas.



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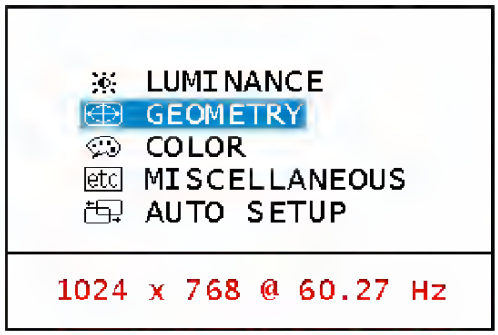
2. Geometry

Press "<"or ">" key to select this item and press **"Enter"** to enter sub-menu. There are four items for geometry adjustments.

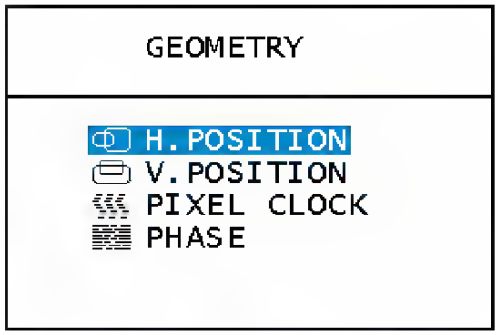


H. (Horizontal) Position: adjusts the horizontal position of the display.

V. (Vertical) Position: adjusts the vertical position of the display.

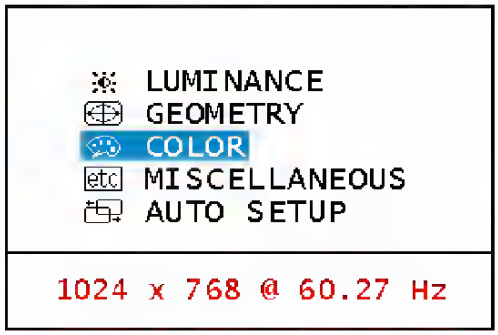
Phase: adjusts the phase of pixel clock.

Pixel Clock: adjusts the frequency of the pixel.



3. Color Adjustment

Press "<"or ">" key to select this item and press **"Enter"** to enter sub-menu. There are four items for geometry adjustments.



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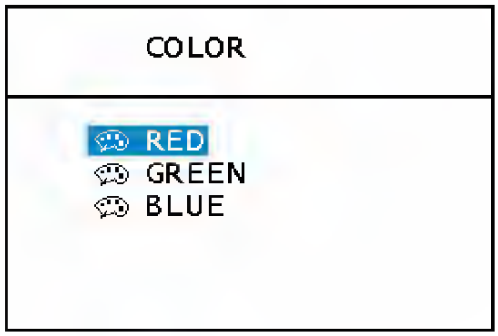
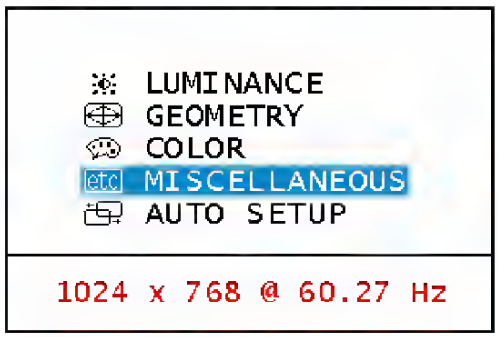
There are three items to adjust. Press "<"or ">"key to select a color and press "**Enter**" to adjust color temperature.



4. etc Miscellaneous

Press "<"or ">"key to select this item and press "**Enter**" to enter sub-menu. There are four items for miscellaneous.

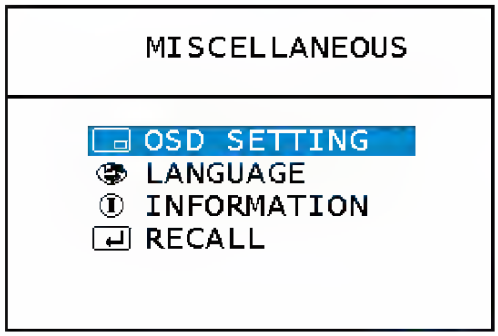


OSD Setting: to adjust settings of OSD.

Language: to select OSD language.

Information: show the display information.

Recall: recall to factory settings.



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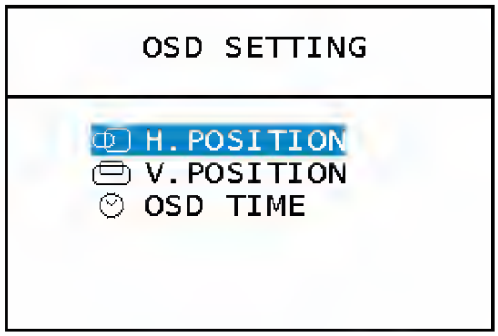
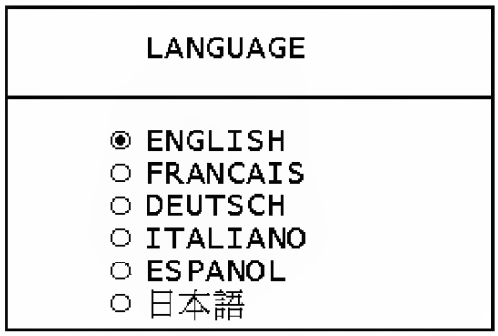
H. (Horizontal) Position: adjusts the OSD horizontal position of the display.

V. (Vertical) Position: adjusts the OSD vertical position of the display.

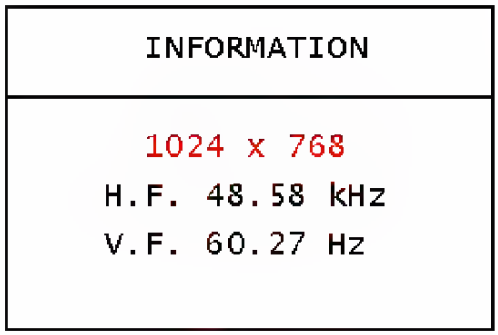
OSD Time: to set the standby time of OSD.



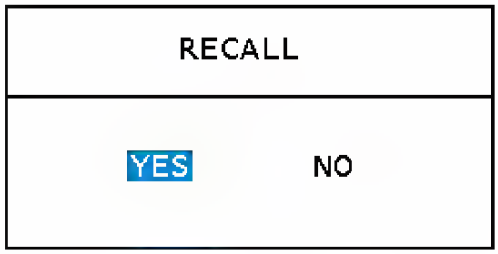
Press "<"or ">"key to select a language then press "**Exit**" to back to previous menu.



Enter "Information" sub menu the OSD display the resolution, horizontal and vertical refresh rate.



Enter "Recall" sub menu and select "Yes" to recall to factory settings.



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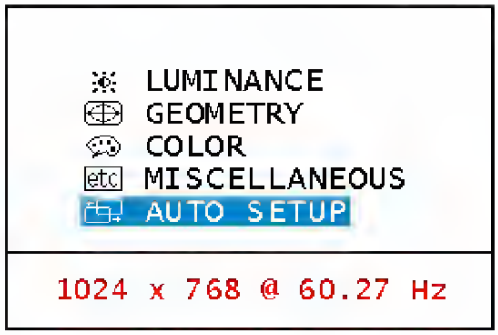
5. Auto Setup

Press "<"or ">"key to select this item and press **"Enter"** to perform auto adjustment.



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Troubleshooting

Frequently Asked Questions (FAQ)

✓ **The image is blurred:**

☞ Read the chapter, Installation/Adjustment and then select the correct resolution, refresh rate and make adjustments hased on these instructions.

☞ Do you use a VGA extension cahle?

Remove the extension cahle for the test. Is the image now in focus? If not, optimize the image working on the description in the chapter, Installation/Adjustment. It is normal for hlurring to occur due to conduction losses in extension cahles. You can minimize these losses hy using an extension cahle with hetter conduction quality or with a huilt-in hooster.

☞ Does the hlurring only occur at resolutions lower than the native (maximum) resolution?

Read the chapter Installation/Adjustment. Select the native resolution.

✓ **Pixel errors can be seen:**

☞ One of several pixels are permanently hlack, one or more pixels are permanently white, one or more pixels are permanently red, green, hlue or another colour.

Read the chapter Pixel error rates.

✓ **The image bas a faulty colour appearance:**

☞ It has a yellow, hlue or pink appearance.

On the monitor press the "Enter" hutton and using the Fly-wheel move to the "colour settings" menu. Select the "Recall" item and press "Enter". If the image is still not correct and the OSD also has a fault colour appearance, then one of the three primary colours is missing in the signal input. Now check the VGA cahle contacts. If any pins are hent or hroken off, then contact your dealer or read the chapter, Additional Help, Repairs & Service.

✓ **No image can be seen:**

☞ Is the prompt on the display illuminated in green?

If the LED is illuminated in green, then press the "Exit" hutton on the monitor to access the On Screen Display. If the message "Not supported Mode" appears there, read the chapter Installation/Adjustment.

☞ Is the prompt on the display illuminated in orange?

If the LED is illuminated in orange, then the power management mode is active. Press a hutton on the computer keyhoard or move the mouse. If that does not help, then check the VGA cahle contacts. If any pins are hent or hroken off, then contact your dealer or read the chapter, Additional Help, Repairs & Service.

☞ Is the prompt on the display not illuminated at all?

Check the power supply mains socket, the external power supply and the mains switch.

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✓ **The image is or distorted, flashes or flickers:**

☞ Read the chapter, Installation/Adjustment and then select the correct resolution, refresh rate and make adjustments based on these instructions.

✓ **The image is displaced in one direction:**

☞ Read the chapter, Installation/Adjustment and then select the correct resolution, refresh rate and make adjustments based on these instructions.

Need More Help?

If your problems remain after checking this manual, please contact your place of purchase or e-mail us at: DPLservice@acercm.com.tw

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Supported operating modes

Incoming display mode (Input timing)				
Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Comment
640x350	31.47(P)	70.08(N)	25.17	DOS
720x400	31.47(N)	70.08(P)	28.32	DOS
640x480	31.47(N)	60.00(N)	25.18	DOS
640x480	37.86(N)	72.80(N)	31.50	VESA
640x480	37.50(N)	75.00(N)	31.50	VESA
800x600	35.16(P)	56.25(P)	36.00	VESA
800x600	37.88(P)	60.32(P)	40.00	VESA
800x600	48.08(P)	72.19(P)	50.00	VESA
800x600	46.87(P)	75.00(P)	49.50	VESA
1024x768	48.36(N)	60.00(N)	65.00	VESA
1024x768	56.48(N)	70.10(N)	75.00	VESA
1024x768	60.02(P)	75.00(P)	78.75	VESA

- Modes, which are not listed in the above table, may not be supported. For an optimal picture it is recommended to choose a mode listed in the table.
- You have 12 available modes compatible with Windows.
- It can happen that the image is disrupted. This can occur as a result of a signal frequency from the VGA card, which does not correspond with the usual standard. This is not, however, an error. You can improve this situation by altering an automatic setting or by manually changing the phase setting and the pixel frequency from the "Geometry" menu.
- If you switch off the monitor, interference lines can occur on your screen. But do not be concerned about this, as it is normal.
- To extend the service life of the product, we recommend that you use your computer's power management function.

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Specifications

Model	FP581
Display type	15.0" ,active, TFT
Viewable diagonal	38.1 cm
Native (maximum) resolution	1,024X768
Colors	16.7 million
Contrast / Brightness	350:1 / 250 cd/m²
Response time	35 ms
Viewing angle (left/right, up/down)	75/75, 70/70
Line frequency	31.47 - 60.02 kHzMulti- frequency monitor
Image frequency	56.25 - 75.0 Hz modes within these parameters
Image checks	Digital, *Screen* OSD Technology, *iKey* (automatic image setting)
Controls	5 buttons and *iKey*.
iScreen functions	Contrast, brightness, vert. & hor. image position, phase, pixel clock, color balance, color palette, choice of language (6 language OSD), OSD position, status indicator
Microprocessor control	12 factory modes:3 DOS modes,9 VESA modes,
Power Management	VESA DPMS, EPA
max. power consumption	36 Watt Max
Power saving mode	< 3 Watt
Input signal	RGB analog 0.7 Vpp/75 Ohm positive
Synchronisation	TTL separate signal connection 15-pin mini D-sub cable
Temperature (operating)	5 °C - 40 °C
Air humidity (operating)	20% - 80%
Certifications	TCO 99 (Optional), TÜV/Ergonomics, CSA, TÜV/GS, IEC950, FCC Class B, DSNF, ISO 13406-2, VCCI, UL, CB Report, CE, C-Tick, BSMI
Operating voltage	Automatic switched mode power supply, 90-264 V, 47-63Hz
Dimensions (W x H x D)	356 x 382.8 x 202.1 mm
Weight	3.3 kg

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Appendix: An Introduction to LCD Technology

Principles of LCD Technology

The functionality of LCD (Liquid Crystal Display) screens is based on the special physical properties of liquid crystals. Their rod shaped molecules arrange themselves similarly to the molecules of crystals - always uniformly and in one particular direction. Yet liquid crystals are not set in this orientation, but behave like a liquid: They can be manipulated by applying an electric voltage. The layers of the liquid crystal molecules can therefore be longitudinal or diagonal to the polarising direction of the light and thereby have a varying effect on the course of light waves.

LIQUID CRYSTALS POLARISE INCIDENT LIGHT

An LC display consists of two polarising filters, a control layer, the respective colour filters and the liquid crystal layer.

The light from a background lamp hits an initial polarisation membrane so that only a specific plane of polarisation of the light reaches the liquid crystal layer. Without any external electrical influence the liquid crystal molecules arrange themselves in a screw-like shape between the two vertically aligned polarising filters and the directional structure imposed as a result. The light follows this orientation and is rotated by 90 degrees. The second polarising filter only allows through light with this rotated polarisation. The light valve is open - as a result the controlled pixel lights up.

If an electrical voltage is applied, the liquid crystal molecules orientate themselves along the field lines. The 90' screw is lifted up, the LC molecules appear parallel to the incident light and allow it to pass through without altering the polarising direction. The unrotated light hits the second, rotated polarising filter and is blocked. As a result the corresponding pixel remains dark. The intensity of the departing, visible light can be controlled by means of the voltage applied to the crystal layer and the polarised light rotated to a greater or lesser extent as a result.

The TFT panel

A. The standard TFT panel

With TFT displays, also called active matrix, the light transmitting capacity of each pixel is in each case controlled by a transistor. The pixels can therefore be operated individually and addressed very quickly, which in turn guarantees perfect display even of moving images. With high-resolution LCDs well over two million pixels (three colour dots for the primary colours red, green and blue per pixel) have to be controlled. The voltage is continuously on so that the image does not have to be rebuilt constantly. The great advantage of this is that LC displays do not flicker, even when they are controlled at low refresh frequencies (e.g. at 60 Hz). Because faulty transistors can occur during production, pixel errors resulting from this are unavoidable.

B. The super TFT panel

The super TFT panel works according to the same physical principle. A significantly increased viewing angle can be created through more precise production and through slightly brighter pixels. This, however, is partly at the expense of the gray level resolution.

C. Comparison of standard and super TFT display

Standard	*Super*
• good gray level resolution	• very good viewing angle
• F satisfactory viewing angle	• satisfactory gray level resolution

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Field of applications: • Image processing • medical field • Standard workstation • Banks (confidential area)	Field of applications: • is several people are working at one screen. • Standard workstation • Presentation tasks • Banks (public area)

Important LCD parameters

A. Viewing angle

The viewing angle is the display's visible field. If one were to imagine a vertical line in the centre of the image and to pivot up and down and to the right and to the left from that point, then that is the viewing angle.†Working ergonomically requires a viewing angle of at least 60°/60° (right/left) horizontally and 45°/45° vertically (up/down). If only two values are specified for horizontal and vertical, the values for right and left, and for horizontal and vertical are added together. If this were the case then this would provide a viewing angle of 120° horizontally and 90° vertically.

B. Contrast

Contrast is the ratio between the light intensity of the brightest and the darkest point of an image. High contrast values improve readability and ergonomics.

A display should in all instances attain contrast values of 100:1. This is a point on which LCD monitors are clearly superior to monitors.

C. Response time

The response time is the time, which a TFT cell requires to switch on and switch off. †For standard applications a response time of a maximum of 70 ms (milliseconds) is sufficient. If a more rapid image build-up is required (e.g. the multimedia field), then values of a maximum of 30 ms are required.

D. Brightness

Brightness is the emitted luminous power over a specified area. Brightness is another point, on which LCD monitors are superior to CRT devices. Traditional monitors create approx. 80 to 100 cd/m² (candela per meter square). In the case of LC displays, values below 150 cm/m² are not acceptable.

Display errors

A. Pixel errors

Pixel errors are (unfortunately) unavoidable with today's production methods, if you want to manufacture displays at an economically sensible price.

A display with a resolution of 1024x768 dots therefore has 786432 pixels. Each pixel consists of the three sub-pixels for red, green and blue. That makes 2,359,296 individual control transistors. It can occur during production that one or several transistors is defective, which means that pixel errors occur, in which a sub-pixel does not light up at all or does so all of the time.

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If you were to accept the same error rate as in the case of the strip mask, for which two horizontal lines are completely disrupted, then you would end up with a 2.6 percent error rate. The accepted error rates for LC displays are far lower, however. If, for example, you were to accept a tolerance of three permitted pixel errors per display, the you would end up with an error rate of 0.0038 per thousand.

B. Blurred image

You can also end up with blurred images with LC displays indeed whenever you depart from the native resolution. A display is built for a set resolution, smaller resolutions can only be displayed interpolated. If, for example, you want to display a resolution of 800x600 on a display with a native resolution of 1024x768, then each horizontal dot would have to display 1.28 dots of the resolution. This doesn't work of course and so intermediate values are calculated and this distorts the original image.

C. Multifrequency as opposed to Multiscan

LC displays require a digital control and because currently there is still no valid standard for a digital control, for the sake of compatibility there is a tendency to revert to the standard VGA connection. This is also ideal for monitors, as they require an analog signal.

The image digitally created in the computer is converted in the graphics card into an analog signal and thus directly controls a CRT monitor. If, however, you use the analog signal of the VGA connection for a digital LC display, then transducer electronics at the input of the display must cater for conversion back into digital signals. Two problems occur with this:

1. conversion losses:

   The image is not so optimal as compared with direct, digital control. It can otherwise be the case that subsequent adjustments are necessary every couple of months on a regular basis. This is generally executed via the OSD or an automatic function)

2. Limitation to specific operating modes:

   Nowadays A CRT monitor is usually a multiscan monitor, which means it can be operated within the limits of its horizontal and vertical frequency, even in non-standard modes. An LCD monitor, in contrast, is a multi-frequency monitor, which means it is only guaranteed to work together with specific modes (see list in the user's guide).

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Comparison of CRT & LCD monitors

CRT monitor	Flat panel display
Advantages: • *Multiscan monitor.* • *same quality in all resolutions.* • *proven connector standard* • *analog (infinite) colour depth* • *no pixel errors* • *also large proportions* • *inexpensive*	*Advantages:* • *no geometry errors* • *no convergence errors* • *excellent brightness and contrast values* • *flicker-free* • *insensitive to magnetic and electric fields* • *low power consumption* • *low heat build-up* • *small footprint* • *low weight*
Disadvantages: • *geometry errors possible* • *convergence errors possible* • *limited brightness and contrast values* • *only flicker-free from 72 Hz* • *sensitive to magnetic and electric fields* • *relatively high power consumption* • *high heat build-up* • *larger footprint* • *high weight*	*Disadvantages:* • *Multi-frequency monitor.* • *best quality only in its native resolution.* • *Absence of standards* • *limited colour depth* • *pixel errors* • *no large proportions* • *expensive*

Summary

Ultimately, it cannot be said that LCD monitors are superior to CRT monitors or vice-versa either. Rather when choosing which device to use you need to weigh up the advantages and disadvantages in order to decide which technology to use.

In the public and presentational arena, LC displays are definitely preferable over CRT monitors. In relation to the display workstation order, the small footprint is also an important argument and in this respect more favours flat panel displays. On the other hand, when it comes to particular colour depth, or you need a large viewable diagonal, the choice of a CRT monitor is still unrivalled.

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